

REMARKS

This Amendment is submitted in reply to the non-final Office Action mailed on August 10, 2006. No fee is due in connection with this Amendment. The Director is authorized to charge any fees which may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 112701-587 on the account statement.

Claims 1, 3-6 and 8-12 are pending in this application. Claims 13-17 were previously withdrawn. Claims 2 and 7 were previously canceled. In the Office Action, Claims 1, 3-4, 6 and 8-10 are rejected under 35 U.S.C. §102 and Claims 5 and 11-12 are rejected under 35 U.S.C. §103. In response Claim 1 has been amended. In view of the amendment and/or for the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

Applicants have amended independent Claim 1 for clarification purposes. The amendment is supported in the specification, for example, at page 7, line 25 to page 8, line 29 and Table 1.

In the Office Action, Claims 1, 3-4, 6 and 8-10 are rejected under 35 U.S.C. §102(b) as being unpatentable over the publication to Fritzsching ("*Fritzsching*"). Applicants believe this rejection is improper and respectfully traverse it for at least the reasons set forth below.

Independent Claim 1 is directed, in part, to a method comprising: (i) forming a liquid starting material comprising water, at least one acidic component, and the at least one sugar alcohol which is not a monosaccharide sugar alcohol; (ii) evaporating water from the liquid starting material under conditions at which the acidic component does not cause significant hydrolysis of the sugar alcohol to dissolve the acidic component in the liquid and to remove at least part of the water to form an intermediate material. In contrast, Applicants respectfully submit that *Fritzsching* fails to disclose or suggest every element of Claim 1.

As taught by Applicants' specification, hard candy is generally made by a process in which a mixture of the sugar or sugar alcohol and water is heated, generally under vacuum, at a temperature of about 130-150°C. The resulting mixture can still be worked and formed into confectionery products as desired and on cooling forms a glassy amorphous solid with a water content of less than 3%. Hard candy generally contains other ingredients some of which can be acidic.

Sugar alcohols which are not monosaccharide sugar alcohols show some susceptibility to acid hydrolysis, and so acid components are conventionally added towards the end of or after heat treatment or cooking. However, hydrolysis of the sugar alcohol can still occur which in turn results in a sticky, hygroscopic product and/or crystallization of the candy. In addition, by the time that the acid component is added, the water content of the mixture has been reduced through evaporation, generally to around 2% or less. The acids are conventionally added as powder rather than pre-dissolved in water to avoid introducing additional water which would remain in the final composition, possibly with detrimental effects on the quality of the final product, but this has the consequence that dissolution of the acid may be difficult or incomplete. Because of these factors, there is a tendency of the final cooked hard candy to be an opaque glassy amorphous solid.

In accordance with the present invention, it has been surprisingly found that acidic component(s) which have conventionally been observed to hydrolyze the sugar alcohol can be added at the start of the process for the manufacture of a hard candy provided that conditions are used in the process under which the acid does not hydrolyze the sugar alcohol. For example, this can involve the use of a vacuum evaporator to reach the desired final moisture content at a temperature which is low enough to avoid hydrolysis of the sugar alcohol. As a result, the problems referred to above are alleviated, and the final cooked hard candy shows improved transparency.

When the acidic component is added at the beginning before evaporation (i.e. cooking) according to the present invention, transmission for a hard candy has been found to be consistently greater than with a comparable product made by a method using addition of acidic ingredients during cooling (i.e. after cooking). See, specification, Example 1 and table 1. Our Comparative Example 2 shows that, when the acid is added during cooling after cooking and vacuuming, the candy product is more opaque than that of Example 1 where the acidic component is added before cooking.

In view of the previous discussion, *Fritzsching* fails to disclose or suggest forming a liquid starting material comprising water and at least one acidic component, and evaporating water from the liquid starting material under conditions at which the acidic component does not cause significant hydrolysis of the sugar alcohol as required, in part, by Claim 1. As a result, Applicants respectfully disagree with the Patent Office's assertions that it is inherent that the

finished product of *Fritzsching* would have improved transparency because it is allegedly processed under similar conditions using similar ingredients.

Fritzsching teaches (at page 69, Figure 7) a process flow chart for hard candies showing the acid added during cooling, which is after cooking and vacuuming. As discussed previously, Applicants have shown in comparative Example 2 that when the acid is added during cooling after cooking and vacuuming the final candy product is more opaque than that made according to the claimed method (Example 1), which involves the acidic component added before cooking the liquid starting material.

In all of *Fritzsching's* processing examples, it is clear that the acidic component is only added after the cooking step. This is further apparent from the description of the production process steps at pages 70 and 71 of *Fritzsching* that describe respective processing steps. The step of adding additives in *Fritzsching's* process follows the cooking and vacuumizing steps. For example, *Fritzsching* teaches that the acids are added at discharge temperatures and that cooling down of the melt is required. See, *Fritzsching*, page 71, column 2. *Fritzsching* states that the temperature should be below 230°F (110°C) when additives are added which is below the cooking temperature. Moreover, *Fritzsching* states that aspartame must be added after vacuum but can be blended with the additives such as acids. This clearly shows that the acids are added during cooling after cooking.

Applicants have described comparative examples that show the differences in transparency of the final candy product made by processes involving adding acid to the liquid mixture before cooking (claimed process) versus adding acid to the cooked composition during cooling and vacuuming the product (*Fritzsching*). Consequently, Applicants' claimed process is distinguishable from *Fritzsching*, and the finished product of *Fritzsching* would not have improved transparency in accordance with the present invention. For at least the reasons discussed above, Applicants respectfully submit that Claim 1 and Claims 3-4, 6 and 8-10 that depend from Claim 1 are novel, nonobvious and distinguishable from the cited reference.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 3-4, 6 and 8-10 under 35 U.S.C. §102 be withdrawn.

Claims 5 and 11-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Fritzsching* in view of U.S. Patent No. 4,971,798 to Coia et al. ("*Coia*"). Applicants respectfully submit that the patentability of Claim 1 as previously discussed renders moot the obviousness

rejection of Claims 5 and 11-12 that depend from Claim 1. In this regard, the cited art fails to teach or suggest the elements of Claims 5 and 11-12 in combination with the novel elements of Claim 1.

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same.

Respectfully submitted,

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